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June 10, 1999

## VIA HAND DELIVERY

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
The Portals TW-A325  
445 12th Street, S.W.  
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION  
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BOSTON

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WASHINGTON, DC

Re: CC Docket No. 96-98  
Reply Comments of Inline Connection Corporation  
Our File 10671/001001

Dear Ms. Salas:

Enclosed please find an original and twelve copies of Reply Comments for Inline Connection Corporation to be filed in the above-captioned proceeding.

Please contact the undersigned counsel if you have any questions regarding this matter.

Very truly yours,

*JNW* *Terry G. Mahn*  
Terry G. Mahn

Enclosures

cc: David Goodman, Inline Connection Corporation  
Janice Myles, Common Carrier Bureau  
International Transcription Services

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In the Matter of )

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Implementation of the Local )  
Competition Provisions of the )  
Telecommunications )  
Act of 1996 )  
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) Second Further Notice of  
) Proposed Rulemaking

) CC Docket No. 96-98  
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**REPLY COMMENTS OF**  
**INLINE CONNECTION CORPORATION**

Terry G. Mahn, Esq.  
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Washington, DC 20005

Counsel for Inline Connection Corporation

June 10, 1999

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

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Telecommunications	)	
Act of 1996	)	CC Docket No. 96-98
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To: The Commission

**REPLY COMMENTS OF  
INLINE CONNECTION CORPORATION**

Inline Connection Corporation, ("Inline"), through counsel, hereby submits these reply comments in the above-captioned Second Further Notice of Proposed Rulemaking, CC Docket No. 96-98, FCC 99-70 (filed April 23, 1999) ("Second FNPRM"). After reviewing the comments submitted in the Second FNPRM, Inline believes that there is ample support for the Commission to order the national unbundling of incumbent local exchange carrier (ILEC) local loops, sub-loops, remote terminals and other down-stream points of connection. In addition, Inline submits that the comments demonstrate clearly that line sharing of subscriber loops is necessary for competitive LEC advanced services offerings and therefore, must be unbundled by ILECs as well.

## **ILEC Unbundling Will Facilitate Provision of Hi-speed Internet and Video Services to Residential Subscribers**

Inline is the developer of an innovative and extremely cost effective high speed communications technology that is being used, through a licensing agreement, to provide very high speed internet and video services to tenants in apartment buildings and guests in hotels. The technology uses the twisted pair telephone wires already existing in these buildings as conductive paths for these data and video "over voice" services.

The wiring topologies in hotels and apartment buildings include a very convenient feature whereby individual twisted pairs leading away from the guest rooms and apartment units always converge at a central point, usually in the basement telephone wiring closet. Such "home run" wiring allows companies using Inline's system and similar systems to bring a very high speed communication line to the closet, where it can be connected to common network switches and concentrators. The result is that each of the subscribers in the building is able to share access to this high speed line. Because Internet users only need network access in "bursts," multiple subscribers can share such a line without noticing any delays -- in other words, each subscriber is given virtual dedicated high speed Internet access.

The use of this technology in apartments and hotels is analogous to the way single family homes are, or will be, served by xDSL technology. With xDSL, the ILEC central office is analogous to the wiring closet, the local loops correspond to the twisted pairs

converging in that closet, and the homes represent the hotel rooms and apartment units. The main difference between xDSL and Inline's technology is the data rate - Inline can achieve data rates approaching 100 megabits per second in apartments and hotels whereas the maximum xDSL data rates are magnitudes lower.

The reason for the disparity in data rates is, of course, a function of distance and cost. To achieve 10 megabits per second in a 500 unit apartment building or hotel is relatively inexpensive. To achieve even 2 megabits per second over a two mile local loop, by contrast, is very costly. This highlights the major problem in providing very high data rate access to single family homes from the central office -- as the demand for bandwidth increases, the loop lengths make the required electronics prohibitively expensive.

The central office, however, is by no means the first point of concentration one encounters moving upstream from the single family end user. Throughout the local plant and close to end users are various remote terminals housing twisted pair bundles, or sub-loop access points, where it is surprisingly easy for a competitive LEC to mount electronics and connect to the local sub-loop. Moreover, to facilitate the delivery of power to these sub-loop access points, Inline and other companies are in the process of developing innovative solutions that will make ILEC unbundling even easier.

By allowing network switches and concentration electronics to access twisted pair sub-loops at remote ILEC terminals (i.e., via pole attachments or other collocation

arrangements), both the physical and economic limitations of the local loop are overcome. Any policy which blocks, or fails to allow, competitive LECs from making use of these terminal access points will erect a fundamental barrier to competitive use of existing plant. Based on the foregoing, Inline urges the Commission to require ILEC line sharing and to order the national unbundling of local loops, sub-loops, and **all** remote terminal locations where competitive LEC access can be achieved, so that single family subscribers may be offered the same high speed cost effective Internet services currently available to hotel and apartment subscribers.

Respectfully submitted,

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June 10, 1999

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